

ABSTRACT OF THE DISCLOSURE

A joint portion of a profile model is retrieved from three-dimensional CAD model data and a joint target part, a joint position and a joint means are registered as parts joint data. A joint model preparing object corresponding to the parts joint data is retrieved from a joint model preparing object database, a joint model preparing process registered in the joint model preparing object is executed to prepare a joint model, and the joint model and a neutral plane model are synthesized to prepare an analytic model.